

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspo.gov

FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. APPLICATION NO. FILING DATE 11/02/2001 Peter Hsiuen Wu 38190/201827 3510 10/016,277 EXAMINER 06/02/2004 ALSTON & BIRD LLP RUGGLES, JOHN S BANK OF AMERICA PLAZA ART UNIT PAPER NUMBER

101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000

1756 DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Application No. Applicant(s) WU PETER HSIUEN 10/016.277 Advisory Action Examiner Art Unit 1756 John Ruggles --The MAILING DATE of this communication appears on the cover sheet with the correspondence address --THE REPLY FILED 30 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. PERIOD FOR REPLY [check either a) or b)] a) The period for reply expires 3 months from the mailing date of the final rejection. b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f). Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 1. A Notice of Appeal was filed on 30 April 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal. 2. The proposed amendment(s) will not be entered because: (a) they raise new issues that would require further consideration and/or search (see NOTE below): (b) They raise the issue of new matter (see Note below); (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or (d) they present additional claims without canceling a corresponding number of finally rejected claims. NOTE: \_\_\_\_. 3. Applicant's reply has overcome the following rejection(s): \_\_\_\_\_. 4. Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s). 5.⊠ The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet. 6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection. 7.⊠ For purposes of Appeal, the proposed amendment(s) a)⊠ will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended. The status of the claim(s) is (or will be) as follows: Claim(s) allowed: \_\_\_\_\_. Claim(s) objected to: . Claim(s) rejected: 1-49. Claim(s) withdrawn from consideration: \_\_\_ 8. The drawing correction filed on \_\_\_\_ is a) approved or b) disapproved by the Examiner. 9. Note the attached Information Disclosure Statement(s)( PTO-1449) Paper No(s).

U.S. Patent and Trademark Office PTOL-303 (Rev. 11-03)

10. Other:

John Ruggles Examiner Art Unit 1756

Continuation of 5. does NOT place the application in condition for allowance because: Applicant's further arguments are still not convincing. As stated previously, Sokol and Maeda were combined because they both relate to radiation curable acrylate coating compositions. Maeda teaches use of a polymerizable acrylate peelable maskant composition having either an inorganic or an organic polymerization initiator (column 4, lines 9-16), which can also include a cross-linking type acrylate thickener (column 5, lines 64-66). Thus, Maeda clearly shows the suitability of using a radiation curable acrylate coating composition as a peelable maskant suitable to withstand the subsequent etching of an underlying metal substrate. Maeda also teaches the heating or curing of this acrylate coating composition (e.g., by far infrared (IR) radiation, etc.) after it has been deposited (column 7, lines 44-46), as was previously pointed out. Even though the Maeda polymerizable acrylate coating composition was cured by heat and/or IR (rather than by actinic (UV) radiation, as in the instant case), the Maeda acrylate coating composition is still radiation curable, in order to form a suitably peelable maskant that stands up to subsequent etching of a metal substrate. While Maeda is silent as to whether further cross-linking of the acrylate polymer coating occurs during the final heating and/or IR exposure, it is clear that sufficient curing has occurred so that the acrylate polymer coating maskant both (1) withstands subsequent etching of the metal substrate and (2) still remains peelable after the etching step. Maeda and Sokol are still believed to relate to the same art of radiation curable acrylate coating compositions. The Sokol substantially solvent free radiation curable acrylate coating composition having a combination of polymerizable acrylate monomers and photoinitiators is quickly cured by actinic or UV light. This gives one of ordinary skill in the art motivation to substitute the solvent free radiation curable acrylate coating composition taught by Sokol for the radiation curable acrylate coating composition of Maeda. This analysis overcomes Applicant's arguments on pages 2-4.

In response to Applicant's argument on pages 2-3 that Sokol's radiation curable acrylate coating composition is not specified as suitable for use as a peelable maskant, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to Applicant's argument on page 3 that Sokol does not specifically show the intention to use a radiation curable acrylate coating as a peelable maskant for etching, the test for obviousness is not whether the features of a secondary reference (Sokol) may be bodily incorporated into the structure of the primary reference (Maeda); nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to Applicant's argument on page 3 that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Applicant's argument on pages 3-4 that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Sokol substantially solvent free radiation curable acrylate coating composition having a combination of polymerizable acrylate monomers and photoinitiators is quickly cured by actinic or UV light. This gives one of ordinary skill in the art motivation to substitute the Sokol solvent free radiation curable acrylate coating composition for the Maeda radiation curable acrylate coating composition, because both compositions are radiation curable acrylates (even though cured by different forms of radiation).

John Ruggles Examiner Art Unit 1756

MARK F. HUFF SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 1700